- DC 724-07 Marshyhope Surface Mine Site Plan

51829-6605

Martin O'Malley
Governor

Anthony G. Brown
Lt. Governor



Margaret G. McHale Chair

Ren Serey
Executive Director

STATE OF MARYLAND CRITICAL AREA COMMISSION CHESAPEAKE AND ATLANTIC COASTAL BAYS

1804 West Street, Suite 100, Annapolis, Maryland 21401 (410) 260-3460 Fax: (410) 974-5338 www.dnr.state.md.us/criticalarea/

May 11, 2008

Mr. Roland Limpert
Department of Natural Resources
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401

Re: MDE Tracking No. 08-SP-1038 Horsey Family LLC/Marshyhope Sand and Gravel

Mine, Dorchester County

Dear Mr. Limpert:

Thank you for forwarding the Public Notice from the Mining Program at MDE regarding the above referenced project. In a phone conversation on Monday, May 5, 2008, you indicated that you intended to request additional information from the applicant and that the information would be forwarded to my office for review once you received it. Additional information outstanding, I'd like to submit for your consideration our comments and concerns as we have relayed them to the County and applicant to date regarding the proposed sand and gravel mine on the Horsey property.

Pursuant to the notification requirements contained within COMAR 27.03.01.03, a copy of the application to permit the industrial uses associated with a surface mine, including grading, clearing, and resource extraction within the resource-protective Resource Conservation Area (RCA) was forwarded to our office by the County on March 3, 2008. Although this office recognizes the societal needs for sand, gravel, and other raw materials, our comments reflect concurrence with the Department of Natural Resources. That is, due to the extent of existing Habitat Protection Areas (HPAs) onsite, and the proposed impacts to those HPAs, the Horsey site is not an appropriate location for the siting of a new mine. I provide the following summary of our concerns below

Habitat Protection Areas

Upon evaluation of the proposed mining site and mine location, the Department of Natural Resources (DNR) provided written comments to Dorchester County. The Department's March 12, 2008 letter indicates that the area proposed for mining is "one of the richest

Mr. Roland Limpert Page 2 of 3 5/12/2008

ecologically [located] on the [Eastern] Shore." The DNR letter lists the species and habitats located on this site, including multiple rare, threatened, and endangered species. According to the Department, the proposed mining activities would adversely impact, either directly or indirectly, the following:

- 1. Forest Interior Dwelling (FIDs) species and habitat
- 2. Delmarva Fox Squirrel (DFS) individuals and habitat
- 3. Marshyhope Creek, Wetlands of Special State Concern (WSSC)
- 4. Upper Nanticoke River Marshes and Swamps, Natural Heritage Area (NHA)
- 5. Two Bald Eagle nests
- 6. Wades Savanna Wetland, a globally rare community type, previously proposed as a Nontidal Wetland of Special State Concern (NTWSSC) which includes 13 Rare, Threatened and Endangered Species (RTE).

The above-referenced sensitive areas are considered HPAs under the Dorchester County Zoning Ordinance and Critical Area Program. The County Critical Area Program defines HPAs as "a site or zone of special significance that provide a living environment for valuable plant or animal species. HPAs include the tidewater buffer, nontidal wetlands, habitat for species of concern, plant and wildlife habitat, and anadromous fish propagation waters" (II-11). Development activities, including surface mining, are expressly prohibited within HPAs in multiple sections of the County's Critical Area Program. Those sections are discussed below.

V.C. The County Critical Area Program Mineral Resources Plan: This Plan indicates that "future surface mining operations will be prohibited in highly erodible soil areas, within the tidewater buffer, and in other Habitat Protection Areas where threatened and endangered species, rare groupings or species, areas of scientific value, or other important natural resources occur (p.38)." The proposed area of mining is within an HPA, and according to the DNR, would have adverse impacts upon rare, threatened and endangered (RTEs) species, as well as rare groupings of species that are of scientific value. Therefore, mining in this area would be in contravention of the County Critical Area Program, as well as COMAR 27.01.07 (Surface Mining in the Critical Area).

<u>V.D.2.</u> Habitat Protection Plan – Nontidal Wetlands: The County's Critical Area Program provides that:

"Development activity and other land disturbance that may adversely affect nontidal wetlands or associated animal and plant life will be prohibited in such wetlands...A minimum 25-foot buffer will be required around nontidal wetlands, unless it can be shown that the proposed activities will not adversely affect the wetland. Buffer requirements will be designed on a project-specific and site-specific basis, with the goal of protecting the hydrologic regime and habitat value of existing wetlands (p.43)."

The DNR letter indicates that "any alteration in this hydroperiod could have devastating impacts on this entire unique natural community." The proposed activity, a 75-foot deep

surface mine within 25 feet of this wetland, will severely impact the hydrology of Wades Savannah and result in the loss of this globally unique wetland community. This is a unique situation where proposed activities within the 1000-foot Critical Area will also impact critical resources outside of the Critical Area. In contrast to permitting the mining use just outside of the standard 25-foot nontidal wetland buffer, it appears that the County habitat protection plan provisions require the County to evaluate whether an additional wetland buffer is needed to protect the hydrologic regime of the Wades Savannah system.

V.D.3. Species of Concern. A. [Process for review of projects]: "The County will prohibit development activities and other disturbances unless it can be shown that these activities or disturbances will not have adverse impacts on these habitats and in doing so, will give serious consideration to all recommendations from the DNR" (p.45). The Horsey mining proposal will directly and indirectly create permanent adverse impacts to species of concern. As such, the proposal is inconsistent with Section V.D.3 of the County Critical Area Program.

V.D.4. Plant and wildlife habitat. "Wildlife habitat will be conserved, and any Natural Heritage Areas (NHAs) protected from alteration due to development activities or cutting or clearing so that the structure and species composition of the areas are maintained" (p.47). The proposed mining activities will permanently alter forest composition of the property as well as the hydrology and ecological function of the NHA. Therefore, the proposal conflicts with the goals of Section V.D.4 of the County Critical Area Program.

The above-referenced sections of the County's Zoning Code and Critical Area Program clearly prohibit the proposed mining project based on the presence of and impacts to HPAs. Further, the documentation of this property by DNR as containing critical resources which support a globally rare wetland system demonstrate the unsuitability of the site for the proposed mining activities.

In summary, the proposed mining activities are in direct contrast to both the County and State Critical Area Programs, in particular, the goals and protections afforded to HPAs. We reiterate that due to the likelihood for irreversible, negative impacts on the numerous and rare sensitive areas and species located on site, this is an inappropriate location for the proposed 140 acre sand and gravel extraction operation.

I look forward to reviewing and providing comments on the additional materials you receive from the applicant. Please forward them to me as they become available. Also, as you may know, the Critical Area Commission is a party intervener to the County's Special Exception proceeding. Thank you for the opportunity to provide comments. If you have any questions, please contact me at 410-260-3476.

Sincerely,

Julie Roberts

Natural Resources Planner

DORCHESTER COUNTY BOARD OF APPEALS

PO BOX 107 CAMBRIDGE, MD 21613 410-228-3234

MEMBERS:

EDWIN HOWARD
DWIGHT CROMWELL
ELIZABETH HILL
CATHERINE McCULLEY
WENDELL FOXWELL

EXECUTIVE SECRETARY:

STEVE DODD

ATTORNEY: WALTER B. GUNBY

DATE:

OCTOBER 7, 2008

TO:

ALL INTERESTED PARTIES IN THE MATTER OF DORCHESTER COUNTY BOARD OF ZONING APPEALS CASE #2338, HORSEY FAMILY, LLC

FROM:

DORCHESTER COUNTY BOARD OF ZONING APPEALS

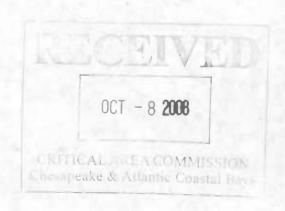
STEVE DODD, EXECUTIVE SECRETARY

RE:

NOTICE OF WITHDRAWAL

Please be advised that the above-captioned zoning appeal case has been withdrawn at the request of the applicant.

Enclosure



MILES & STOCKBRIDGE P.C.

William W. McAllister, Jr. 410-228-4545 wmcallister@milesstockbridge.com

October 1, 2008

Steve Dodd
Director
Dorchester County Planning & Zoning
P.O. Box 107
Cambridge, MD 21613

Re: Special Exception Case No. 2338

Horsey Family, LLC

Marshyhope Sand and Gravel Application

Dear Steve:

Pursuant to our recent discussion, I am writing to notify you that the above-referenced Special Exception Request is moot and may be withdrawn from consideration by the Board of Appeals, due to the recent sale of the property to the Eastern Shore Land Conservancy. Settlement occurred on August 20, 2008. As you may recall, public hearing on this matter was postponed from April 15 and 16, 2008 and has not been rescheduled.

Thank you for your assistance in withdrawing this request. Please contact me if you have any questions regarding this matter.

Sincerely.

William W. McAllister, Jr.

WWM:ild

Roberts, Julie

From: Limpert, Roland

Sent: Wednesday, April 23, 2008 9:16 AM

To: Roberts, Julie

Subject: FW: MDE 08-SP-1038 Horsey Family LLC/Marshyhope Sand and Gravel

Julie,

We have received the notice from MDE requesting our comments on the surface mine application for this project. I sent a copy of the notice to Lisa so you should be getting it if you have not already gotten it. Below is Wildlife and Heritage's response for your information. If, after looking at the MDE notice, could you let me know if you have any additional comments beyond those made in your letter to Dorchester County in March otherwise I was planning to include copies of your letter and Scott Smith's letter in my response back to MDE's surface mine notice and the nontidal wetland application for a road crossing that we have received. If you are agreeable to sending MDE a copy of your March letter, could you send me a copy as all I have is faxed copy that does not copy well.

Thanks.

Roland

Roland Limpert
Maryland Department of Natural Resources
Environmental Review Unit
Tawes State Office Building, B-3
Annapolis, MD 21401

410.260.8333 410.260.8339 (fax)

----Original Message----From: Larney, Tim

Sent: Tuesday, April 22, 2008 2:54 PM

To: Limpert, Roland

Cc: Therres, Glenn; Smith, Scott A.; Knapp, Wesley M.

Subject: MDE 08-SP-1038 Horsey Family LLC/Marshyhope Sand and Gravel

Roland, we have received the official application from MDE's Water Management Administration for 140.69-acre surface mine referenced above. Although actual plans depicting design details and ultimate limits of disturbance where not provided for review, the Wildlife and Heritage Service can say at this time that it has serious concerns regarding this proposed activity and the potential impacts that may result. It would be helpful to point out that we have already provide detailed comments to the Dorchester County Planning and Zoning Department on this project as part of the initial proceedings for an associated special exception request. I would suggest referring to that document as it provides a comprehensive overview of the natural resource protection issues we are concerned about here. I have included some summarized excerpts below to assist in quickly identifying the pertinent matters for this particular application. Feel free to call me if you have any questions. Thanks.

This particular project stands out as having a long list of sensitive resources potentially impacted, directly and/or indirectly. This area is one of the richest ecologically that we have on the Shore. The forests are suitable habitat for Forest Interior Dwelling Birds (FIDS). A 2007 photo-monitoring study by Three Square Wildlife Services documented the federally and state-endangered Delmarva Fox Squirrel also residing in these woods. The swamps and marshes associated with Marshyhope Creek are designated as Wctlands of Special State Concern (WSSC) in COMAR. Likewise, these same areas plus adjacent upland areas are designated in COMAR as part of the Upper Nanticoke River Marshes

EASEMENT (CA) — An interest in land owned by another that entitles its holder to a specific use or enjoyment.

ECOSYSTEM (CA) — A more or less self-contained biological community together with the physical environment in which the community's organisms occur.

ECOTONE (CA) — An ecological community of mixed vegetation formed by the overlapping of adjoining communities.

ELEVATION, FINISH — The elevation of the land surface of a site after completion of all site preparation work.

EMPLOYEE RESIDENCE — A residence on a parcel used specifically to house an employee of the property owner. At least 1/2 of the household income shall be obtained from the owner of the subject property.

ENDANGERED SPECIES (CA) — Any species of fish, wildlife, or plants which have been designated as endangered by regulation by the Secretary of the Department of Natural Resources. Designation occurs when the continued existence of these species as viable components of the state's resources are determined to be in jeopardy. This includes any species determined to be an "endangered" species pursuant to the Federal Endangered Species Act, 16 U.S.C. § 1531 et seq., as amended. The Bald Eagle is an endangered species in Talbot County.

EROSION (CA) — The wearing away of the land surface by wind or water, usually intensified by land-clearing practices.

ESCARPMENT (CA) — A steep slope or long cliff resulting from erosion or faulting and separating two relatively level areas of differing elevations.

ESTUARINE FLAT NURSERY AREA (CA) — Low lying, partly flooded grounds such as tideland, where fresh water meets salt water and young marine life develops. These are delicate ecosystems.

EUTROPHICATION (CA) — The process of change or "aging" of a water body in which the nutrient level (phosphates and nitrates) increases, encouraging the growth of algae with accompanying depletion of dissolved oxygen in the bottom waters.

EXCESS STORMWATER RUNOFF (CA) — All increases in stormwater resulting from:

- A. An increase in the imperviousness of the site, including all additions to buildings, roads, and parking lots;
- B. Changes in permeability caused by compaction during construction or modifications in contours, including the filling or drainage of small depression areas;
- C. Alteration of drainageways or regrading of slopes;
- D. Destruction of forests: or
- E. Installation of collection systems to intercept street flows or to replace swales or other drainageways.

FACILITY, PUBLIC — Any publicly owned and/or operated use, building, or establishment such as a school, post office, fire station, courthouse.

FALLOW LAND (CA) — Land that is plowed and tilled but left unseeded during a growing season.

FAMILY — An individual, or two or more persons related by blood or marriage, or a group of not more than six persons not related by blood or marriage, living together as a single housekeeping group in a dwelling unit.

and Swamps Natural Heritage Area (NHA), a title that recognizes that this natural community is among the best Statewide examples of its kind. A pair of the state-threatened Bald Eagles nest on the property and another pair nests nearby to the south. Ancient inland sand ridges, part of a unique natural community known as Inland Dune Ridge Forest, on the adjacent Henson Boy Scout Camp harbor 2 state-listed plant species which also likely occur on similar sand ridges on the Horsey property.

Wades Savanna, an important wetland which is located at this site, is the only known Maryland occurrence of a globally rare community type called Central Coastal Plain Basin Swamp. The only other known occurrences of this community are on Virginia's coastal plain. This wetland was included in a list sent to the Maryland Department of the Environment (MDE) several years ago for designation as a Nontidal Wetland of Special State Concern (NTWCSC) in COMAR.

Wades Savanna is believed to be the remnants of an old oxbow from a former channel of Marshyhope Creek that was cut off from the main creek sometime in the distant past. It has a unique "savanna-like" mix of large swamp tupelos with their swollen buttresses, more reminiscent of swamps in the Carolinas, and open-canopy areas dominated during dry periods by a diversity of rare herbaceous plant species (see table below). During wet periods it is important breeding habitat for amphibians. Because this site is part of a former creek channel, its hydrology is very unique, obtaining moisture from groundwater. rainwater and slow but discernable flow from adjacent wetlands to the north, remnants of the former creek channel. The wetland basin dries up completely during severe drought conditions, removing any fish that may have entered the system during prolonged wet periods. The lack of fish makes the site suitable for successful breeding by amphibians. More importantly, this seasonal hydroperiod is a strong selective force for rare plants that have adapted to these seasonally changing conditions. Any alteration in this hydroperiod could have devastating impacts on this entire unique natural community. The proposed activity could severely impact the hydrology of Wades Savanna and result in the loss of this globally unique wetland community. This is a unique situation where proposed activities within the 1000-foot Critical Area will also impact critical resources outside of the Critical Area.

Wades Savanna/Horsey Tract Rare, Threatened & Endangered Species List

Common Name	Scientific Name	G & S-Ranks	Legal Status
Cypress-swamp Sedge	Carex joorii	G4G5 S3	Watchlist
American Waterwort	Elatine americana	G4 S3	Watchlist
Three-ribbed Spikerush	Eleocharis tricostata	G4 S1	Endangered ^S
Bald Eagle Ha	liaeetus leucocephalusG5	S2S3B	Threatened ^S
Hairy Snoutbean	Rhyncosia tomentosa	G5 S2	Threatened ^S
Delmarva Fox Squirrel Sc Reticulated Nutrush	iurus niger cinereus Scleria reticularis	G5T3 S1 G4 S2	Endangered ^{S,F} State Rare
Southern Goat's Rue	Tephrosia spicata	G4G5 S1	Endangered ^S
Pale Mannagrass Salt-marsh Bulrush	Torreyochloa pallida Scirpus cylindricus	G5 S1S2 G5 S2	Endangered ^S State Rare
Community Type			
Central Coastal Plain Basin Swamp	Liquidamber styracif Acer rubrum-Nyssa b		Globally Rare Proposed NTWSSC

CONVENIENCE STORE — A retail store that is designed and stocked to sell primarily food, beverages, and other household supplies to customers who purchase only a relatively few items (in contrast to a supermarket). It is designed to attract and depends upon a large volume of stop-and-go traffic.

CONVENTIONAL CONSTRUCTION — Buildings which are fabricated or assembled in the greater part at the site where such buildings are to be located, not including mobile homes, or recreational trailers, and vehicles, or buildings which are designed to be portable.

COVERAGE — A geographic area served by a wireless communications facility showing the effectiveness of reception and transmission in that area. [Added 11-27-2001 by Bill No. 850, effective 1-26-2002]

COVER CROP (CA) — A vegetative cover to protect soils from erosion and to restrict pollutants from entering the waterways. Cover crops can be dense, planted crops of grasses or legumes or crop residues such as corn, wheat, or soybean stubble which maximize infiltration and prevent runoff from reaching erosive velocities.

CRITICAL AREA (CA) — All lands and waters defined in § 8-1807 of the Natural Resources Article, Annotated Code of Maryland. They include:

- A. All waters of, and lands under, the Chesapeake Bay and its tributaries to the head of tide as indicated on the state wetlands maps and all state and private wetlands designated under Title 9 of the Natural Resources Article. Annotated Code of Maryland; and
- B. All land and water areas within 1,000 feet of the landward boundaries of state or private wetlands and the heads of tides designated under Title 9 of the Natural Resources Article, Annotated Code of Maryland.

Modifications may be made to the boundaries of these areas through inclusions or exclusions proposed by the County and approved by the Critical Area Commission as specified in § 8-1807 of the Natural Resources Article, Annotated Code of Maryland.

CRITICAL AREA COMMISSION (CA) — The Chesapeake Bay Critical Area Commission.

CUL-DE-SAC — A street that terminates in a vehicular turnaround.

CULTURAL FACILITIES — Establishments such as museums, art galleries, and botanical or zoological facilities of historic, educational, or cultural interest which are operated by public or quasi-public institutions.

DAY-CARE CENTER, SMALL GROUP — Any arrangement that provides day care for children or adults on a regular basis, with not less than nine and not more than 12 clients including any relatives of the care provider.

DAY-CARE CENTER, GROUP — Any arrangement that provides day care for children or adults on a regular basis, with 13 or more clients including any relatives of the care provider.

DAY-CARE FACILITY, FAMILY — Any arrangement that provides day care for children or adults on a regular basis for eight or fewer clients including any relatives of the care provider.

DENSITY (CA) — The number of dwelling units per acre within a defined and measurable area. In calculating the density of development that is permitted on a parcel located within the Rural Conservation District, the area of any private tidal wetlands located on the property may be included, subject to the following conditions:

- A. The density of development on the upland portion of the parcel shall not exceed one dwelling unit per eight acres; and
- B. The area of private wetlands shall be estimated on the basis of vegetative information as designated on the state wetland maps, or as otherwise substantiated by on-site

Inland Dune Ridge Forest

Carex joorii Forest
Pinus virginiana-Quercus
falcata-Carva pallida Forest

State Rare

Another issue that is often overlooked but can have negative effects on the wildlife that uses this area, not to mention adjacent landowners, is the noise associated with continuous truck traffic onsite and operation of the floating dredge and pumps for the sorter and dewatering machinery. This is a relatively pristine area, currently having one large agricultural field in the north central area of the parcel and old abandoned shallow sand pits along the levee of Marshyhope Creek. The latter have reverted to a wild state and currently harbor considerable wildlife. These old sandpits are not comparable to what is being proposed because of their small size and shallowness. The rest of this tract is wooded and/or wetland.

The sand and gravel mine, if constructed as proposed, would have serious and irreversible impacts to most of the sensitive resources that occur on the Horsey tract. These impacts are borne out in a number of regulatory issues associated with the proposed surface mine:

- 1) Natural Heritage Area (NHA) The NHA also encompasses the WSSC associated with Marshyhope Creek. Critical Area regulations state that the structure of the vegetation and species composition must be maintained within NHAs, thus the area within NHAs cannot be significantly altered. The proposed surface mine may affect the hydrology of the NHA resulting in change to the vegetative structure and/or composition. Noise pollution and the effects of increased human activity, particularly truck traffic, will have negative affects that extend into the NHA on wildlife resources.
- 2) Delmarva Fox Squirrel (DFS) It appears that most of the currently existing forest on the southern half of the property will be permanently removed by the surface mine. DNR guidelines, based on the Federal Recovery Plan for DFS, call for retention of at least 25% of the forested acreage on a development site, with as much of this being contiguous as possible. The DFS guidelines also call for stream and nontidal wetland buffers to be a minimum of 100 feet and preferably expanded to 300 feet. Retention of mast-producing trees such as oaks should be encouraged. Retaining a forested buffer of at least 300 feet on the west side of Wades Savanna and associated wetlands extending to the north will help meet this criterion, and will also link these forested areas with contiguous forested habitat on the adjacent Boy Scout Camp, providing habitat connectivity for DFS, FIDS and other wildlife. Because DFS is also a federally-listed species, Mary Ratnaswamy of the U.S. Fish & Wildlife Service-Chesapeake Bay Field Office should be contacted for comment on this proposal.
- 3) Forest Interior Birds (FIDS) Recommendations found in *A Guide to the Conservation of Forest Interior Birds in the Chesapeake Bay Critical Area* (2000) should be followed. This project will result in permanent loss of FIDS habitat on the southern half of the property if the project proceeds as proposed.
- 4) Nontidal Wetland of Special State Concern (NTWSSC) –Wades Savanna is a proposed NTWSSC and is treated as such by DNR. The boundaries of this NTWSSC should extend north along the series of wetlands that were the former stream channel which help hydrologically feed Wades Savanna. Without maintaining the current hydrology of this series of wetlands, Wades Savanna will cease to exist in its present form. NTWSSC require minimum 100-foot buffers (COMAR). However, it is our view that the 100-foot buffer protection requirements are inadequate to protect the hydrology of this site from likely hydrologic impacts.

Tim Larney

delineation

DEVELOPED WOODLANDS (CA) — Those of one acre or more in size which predominantly contain trees and natural vegetation and which also include residential, commercial, or industrial structures and uses.

DEVELOPMENT ACTIVITIES (CA) — Any activity that: [Amended 12-9-2003 by Bill No. 926, effective 2-7-2004; 9-28-2004 by Bill 961, effective 11-27-2004]

- A. Is shown on a subdivision plat, revised plat, site plan, building/zoning permit or Forest Preservation Plan; and/or
- B. Results in the construction or substantial alteration of any residential, commercial, industrial, institutional, recreational (including golf courses), or transportation facilities or structures. The Planning Officer shall determine whether a proposed alteration is substantial.

DIATOMACEOUS EARTH (DIATOMITE) (CA) — A siliceous material resembling chalk used in wastewater treatment plants to filter solids out of sewage effluent. May also be used as an inactive ingredient in pesticide formulations applied as dust or powder.

DIKE — A containment enclosure for the deposit of hydrological dredged spoils.

DIRECTIONAL SIGNS — Signs which display the name and/or nature of a commercial or industrial activity and indicate through writing or graphic material the geographic location of such an activity.

DISTURBANCE — To change, alter, interrupt or interfere with. [Added 12-9-2003 by Bill No. 926, effective 2-7-2004]

DOCUMENTED BREEDING BIRD AREAS (CA) — Forested areas where the occurrence of interior dwelling birds, during the breeding season, has been demonstrated as a result of onsite surveys using standard biological survey techniques.

DREDGING (CA) — A method for deepening streams, swamps, or coastal waters by removing solids from the bottom.

DRIVE-IN RESTAURANT — A building or a portion thereof where food and/or beverages are sold in a form ready for consumption and where all or a significant portion of the consumption takes place or is designed to take place outside the confines of the building, often in a motor vehicle on site.

DRIVEWAY — That portion of the vehicle accommodation area that consists of a travel lane bounded on either side by an area that is not part of the vehicle accommodation area.

DWELLING, MULTIFAMILY — A residential building consisting of three or more dwelling units, designed for or occupied by three or more families.

DWELLING, SINGLE-FAMILY — A detached residential building designed for or used as a dwelling exclusively by one family as an independent housekeeping unit, excluding mobile homes.

DWELLING, TWO-FAMILY — A detached residential building containing two dwelling units, designed for and occupied by two families.

DWELLING UNIT — A single unit providing complete, independent living facilities for at least one person, including permanent provisions for sanitation, cooking, eating, sleeping, and other activities routinely associated with daily life. "Dwelling unit" includes a living quarters for domestic or other employee or tenant, an accessory apartment, or a guest house. [Amended 12-9-2003 by Bill No. 926, effective 2-7-2004; 9-28-2004 by Bill No. 961, effective 11-27-2004]

Operations Manager Natural Heritage Program 410-260-8567 CHURCHES (INCLUDING TEMPLES) — A building used for religious services or worship by a group of people associated with a recognized established faith.

CLEAR-CUTTING (CA) — The removal of an entire stand of trees in one cutting.

CLUSTER DEVELOPMENT (CA) — A residential development in which dwelling units are concentrated in selected areas of the site so as to provide natural habitat, and preserve natural features or other open space uses on the remainder.

COLLOCATION OF WIRELESS COMMUNICATIONS FACILITIES — The addition of one or more wireless communications facilities to a wireless communications tower or other supporting structure. [Added 11-27-2001 by Bill No. 850, effective 1-26-2002]

COLONIAL NESTING WATER BIRDS (CA) — Herons, egrets, terns, and glossy ibis. For purposes of nesting, these birds congregate (that is colonize) in relatively few areas, at which time, the regional populations of these species are highly susceptible to local disturbances.

COMBINATION USE — A use consisting of a combination on one lot of two or more principal uses separately listed in the Land Use Table. Editor's Note: See the General Table of Land Use Regulations in § 190-19. (Under some circumstances, a second principal use may be regarded as accessory to the first, and thus a combination use is not established. In addition, when two or more separately owned or separately operated enterprises occupy the same lot, and all such enterprises fall within the same principal use classification, this shall not constitute a combination use.)

COMMERCIAL DOCK — A facility for the mooring, berthing, storing, or securing of watercraft, which is operated as a commercial enterprise. Included may be such services and sales operations as are directly incidental to the mooring, berthing, storing, securing, or operation of watercraft. Uses and structures which are not water-dependent shall not be permitted in the buffer.

COMMERCIAL HARVESTING (CA) — A commercial operation that would alter the existing composition or profile, or both, of a forest, including all commercial cutting operations done by companies and private individuals for economic gain.

COMMERCIAL USE — An activity carried out for pecuniary gain.

COMMON OPEN SPACE AREA — An area devoted to open space within a residential development provided for the use of the residents of such development and their guests.

COMMUNICATIONS. FACILITY — Any facility, excluding satellite television dish antennas, established for the purpose of providing wireless voice, data, and image transmission within a designated service area. A wireless communications facility consists of one or more antennas attached to a support structure and related equipment. [Added 11-27-2001 by Bill No. 850, effective 1-26-2002]

COMMUNITY PIERS (CA) — Boat docking and launching facilities associated with subdivisions and similar residential areas and with condominium, apartment, and other multiple-family dwelling units. Private piers are excluded from this definition.

COMPREHENSIVE OR MASTER PLAN (CA) — A compilation of policy statements, goals, standards, maps, and pertinent data relative to the past, present, and future trends of Talbot County including, but not limited to, its population, housing, economics, social patterns, land use, water resources, and their use, transportation facilities and public facilities prepared by the Talbot County Planning Commission for the Talbot County Council.

CONSERVATION EASEMENT (CA) — A nonpossessory interest in land which restricts the manner in which the land may be developed in an effort to reserve natural resources for future use.

CONTIGUOUS — Adjoining and having a common boundary; not separated by a federal highway, state highway, county road, or major watercourse.



Robert L. Ehrlich, Jr., Governor Michael S. Steele, Lt. Governor C. Ronald Franks, Secretary

January 11, 2007

M' Sandy Russum Lane Engineering, Inc. 15 Washington Street Cambridge, MD 21613

RE: Environmental Review for Lands of Horsey Family LLC, for Buchart Horn, Inc., Galestown area, Dorchester County, Maryland.

Dear M' Russum:

Without property boundaries delineated on your map, or tax map and parcel reference, we cannot tell for certain which of these resources occur on the site, and which occur in close proximity, but our potential concerns are as follows:

A bald eagle nest occurs on/or within close proximity to the project site. The bald eagle is listed as a threatened species by both the state and the federal government. Protection of endangered species habitat is required within the Critical Area. The approximate location of the eagle nest on the property is indicated on the attached map. To protect this nest site the following guidelines should be implemented:

- 1. Establish a protection area of ¼ mile radius around the nest tree. Within this area, establish three zones of protection: Zone 1 extends from the nest tree to a radius of 330 feet, Zone 2 extends from 330 feet to 660 feet in radius, and Zone 3 extends from 660 feet to ¼ mile (1320 ft).
- 2. No land use changes, including development or timber harvesting, should occur in Zone 1.
- 3. Construction activities, including clearing, grading, building, etc., should not occur within Zones 1 and 2 and ideally no closer than 750 feet from the nest.
- 4. Selective timber harvesting may occur in Zone 2, but clearcutting should be avoided.
- 5. No construction or timber harvesting activities should occur within the ¼ mile protection zone during the eagle nesting season, which is from December 15 through June 15.

These general guidelines are used by our biologists for bald eagle nest site protection. Specific protection measures depend on the site conditions, planned activities, nest history and other factors. For more specific technical assistance regarding your project relative to bald eagle protection contact the WHS.

A portion of the project site may overlap with the Natural Heritage Area (NHA) "Upper Nanticoke River NHA #24" that is designated along the Nanticoke River. Part of the river and its associated wetlands are also designated as Wetlands of Special State Concern (WSSC) on or in close proximity to this project site. Activities within NHAs are regulated so that the structure and species composition of the area are maintained [COMAR 27.01.09.04.C(2)(b)(vii)].

WSSCs are regulated by Maryland Department of the Environment, and therefore your project may also need review by MDE for any necessary permits associated with these wetlands.

The Wildlife and Heritage Service's database also indicates that there is a Delmarva bay habitat on/adjacent to the project site that supports state rare Reticulated Nutrush (*Scleria reticularis*). In addition, there are records for other rare, threatened or endangered species in close proximity to the project site that could potentially occur on the site, as well, if the appropriate habitat for these species is present. They are:

Scientific Name	Common Name	State Status
Tephrosia spicata	Southern Goat's Rue	Endangered
Rhynchosia tomentosa	Hairy Snoutbean	Threatened

Our analysis of the information provided also suggests that the forested area on the project site contains Forest Interior Dwelling Bird habitat. Populations of many Forest Interior Dwelling Bird species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of this habitat is mandated within the Critical Area and must be addressed by the project plan. Specifically, if FIDS habitat is present, the following guidelines should be incorporated into the project plan:

- 1. Restrict development to nonforested areas.
- 2. If forest loss or disturbance is unavoidable, concentrate or restrict development to the following areas:
 - a. the perimeter of the forest (i.e., within 300 feet of existing forest edge)
 - b. thin strips of upland forest less than 300 feet wide
 - c. small, isolated forests less than 50 acres in size
 - d. portions of the forest with low quality FIDS habitat, (i.e., areas that are already heavily fragmented, relatively young, exhibit low structural diversity, etc.)
- 3. Maximize the amount if forest "interior" (forest area >300 feet from the forest edge) within each forest tract (i.e., minimize the forest edge: area ratio). Circular forest tracts are ideal and square tracts are better than rectangular or long, linear forests.
- 4. Minimize forest isolation. Generally, forests that are adjacent, close to, or connected to other forests provide higher quality FIDS habitat than more isolated forests.
- 5. Limit forest removal to the "footprint" of houses and to that which is necessary for the placement of roads and driveways.
- 6. Minimize the number and length of driveways and roads.
- 7. Roads and driveways should be as narrow and as short as possible; preferably less than 25 and 15 feet, respectively
- 8. Maintain forest canopy closure over roads and driveways.
- 9. Maintain forest habitat up to the edges of roads and driveways; do not create or maintain mowed grassy berms.
- 10. Maintain or create wildlife corridors.
- 11. Do not remove or disturb forest habitat during April-August, the breeding season for most FIDS. This seasonal restriction may be expanded to February-August if certain early nesting FIDS (e.g., Barred Owl) are present.
- 12. Landscape homes with native trees, shrubs and other plants and/or encourage homeowners to do so.
- 13. Encourage homeowners to keep pet cats indoors or, if taken outside, kept on a leash or inside a fenced area.
- 14. In forested areas reserved from development, promote the development of a diverse forest understory by removing livestock from forested areas and controlling white-tailed deer populations. Do not mow the forest understory or remove woody debris and snags.

Page 3

15. Afforestation efforts should target a) riparian or streamside areas that lack woody vegetative buffers, b) forested riparian areas less than 300 feet wide, and c) gaps or peninsulas of nonforested habitat within or adjacent to existing FIDS habitat.

The Critical Area Commission's document "A Guide to the Conservation of Forest Interior Dwelling Birds in the Chesapeake Bay Critical Area" provides details on development standards and information about mitigation for projects where impacts to FIDS habitat cannot be totally avoided. Mitigation plantings for impacts to FIDS habitat may be required under the local government's Critical Area Program. The amount of mitigation required is generally based in whether or not the guidelines listed above are followed.

Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at (410) 260-8573.

Louia. Bym

Lori A. Byrne,

Environmental Review Coordinator Wildlife and Heritage Service

MD Dept. of Natural Resources

ER #2006.3002.do Cc:

S.A. Smith, DNR

L. Hoerger, CAC

Attachment

Maryland Department of the Environment

Water Management Administration

Minerals, Oil & Gas Division 1800 Washington Boulevard, Suite 435 Baltimore, Maryland 21230-1708

Martin O'Malley Governor Shari T. Wilson Secretary

Anthony G. Brown Lt. Governor

Robert M. Summmers, Ph.D. Deputy Secretary

MEMORANDUM

To: PPR & Environment Review Program, Department of Natural Resources, B3

Mr. J. Rodney Little, Maryland Historical Trust Ms. Amanda Sigillito, Nontidal Wetlands Division Mr. Thomas C. Boone, Compliance Program

Dr. James Reger, Maryland Geological Survey

From: Molly Mosall, C.P.G Mining Program

Subject:08-SP-1038

Horsey Family LLC Marshyhope Surface Mine

New Surface Mine Application ____X___

Horsey Family LLC has submitted an application for a 140.69- acre surface mine located at the intersection of Maryland Route 14 and Maryland Route 313 in Dorchester county.

The site has been screened using GIS layers for impacts to natural and historic resources and Wetlands of special state concern and floodplains were found on the property. A location map is attached for your use. The application is on file in this office and available for further review. All of you have commented on this project for the zoning hearing. You can forward those comments for surface mine file.

If you have any questions please do not hesitate to contact me I can be reached at (410) 537-3775 or medsall@mde.state.md.us for further information.

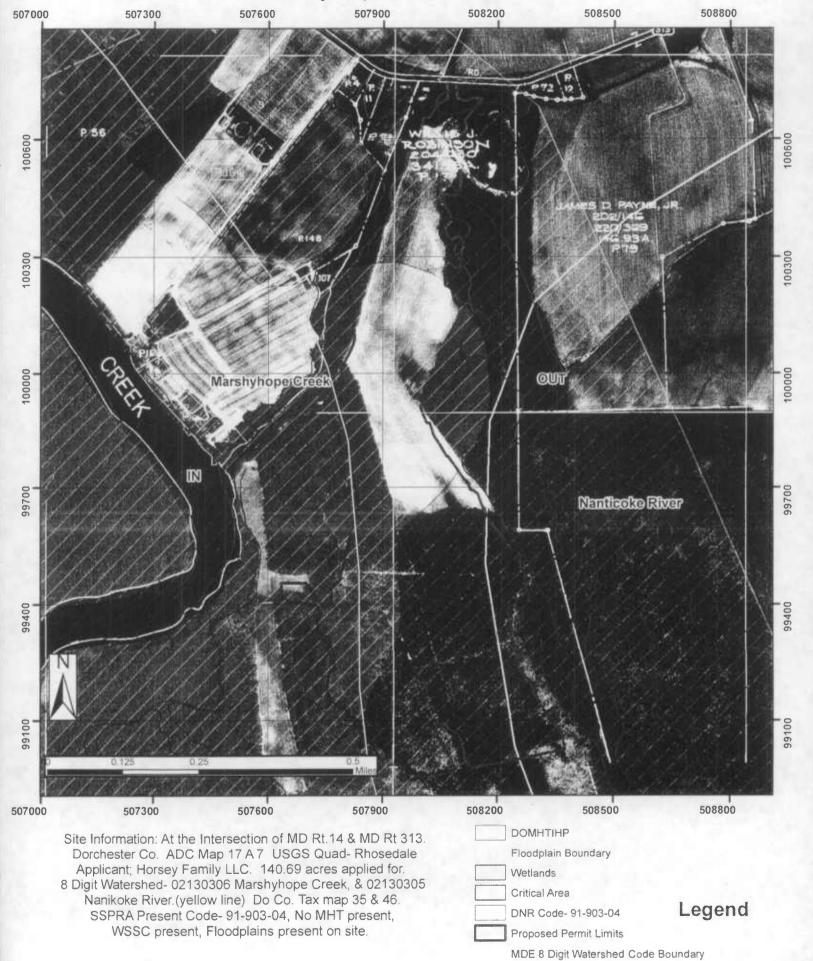
Thank you for your continued assistance.

Attachment



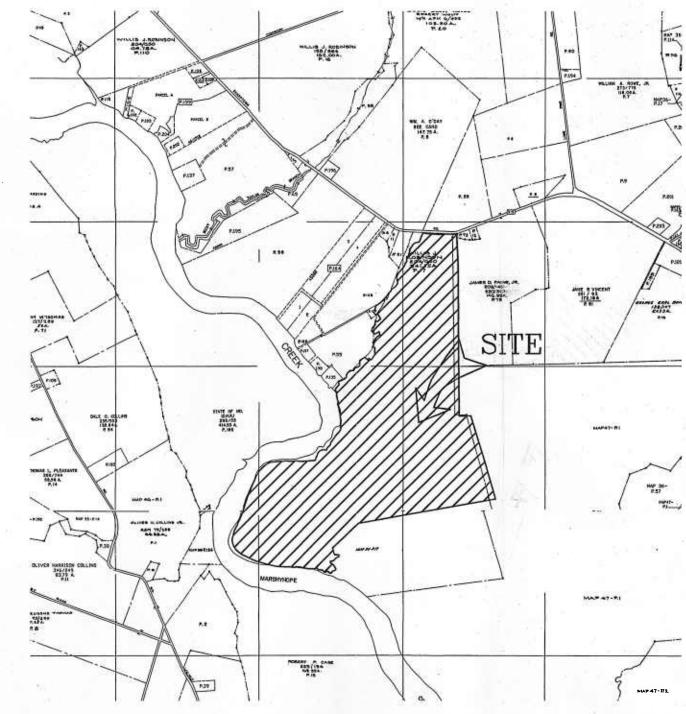
08-SP-1038 Horsey Family LLC-Marshyhope Surface Mine





MARSHYHOPE SURFACE MINE, ELDORADO

IN THE FIRST ELECTION DISTRICT DORCHESTER COUNTY, MARYLAND



VICINITY MAP
SCALE: 1" = 2000'
Copyright of the ADC Map People
Permitted Use No. 20992180
(ADC MAP No. 16 & 17)

	GENERAL NOTES	
1.	All materials and methods of construction shall conform to the drowings, and the standard specification.	, specifications, local building codes,
3.	These drawings show information fram the best available records regarding and other structures and conditions, which exist along the line of work, ground. The owner and the engineer disclaim any respansibility for the information, which is shown anly far the convenience of the contractor. Information given to his own satisfaction. If the contractor relies an soil own risk. The giving of the information an construction drawings will not obligation to support and protect all pipes, canduits, telephane lines and Should any damage occur to such utilities, it shall be repaired solely at All disturbed areas shall be smoothly graded to promate positive drainages seed and mulch. If settlement occurs, topsoil, seeding and mulch shall be	both at and below the surface occuracy or completeness of said. The contractor must verify the id information, he does so at his t relieve the contractor of his own other structures. the controctors expense. e and also stabilized with topsoil,
_	(See Soil Erosion and Sediment Control notes, details, and specifications)	
5.	The contractor shall notify the following, two weeks prior to the stort of all construction phases with them:	construction, and shall coordinate
	——————————————————————————————————————	
	Darchester County Soil Conservation District	(410) 228-3733
	Lane Engineering, Inc.	(410) 822-8003
	Miss Utility	1 (800) 257-7777
6. 7.	The Contractor ossumes all responsibility far any deviation from these The owner is responsible for the acquisition and dedication of all ease	plans.
8.	The final authority for oll wetlands related issues rest with the United and/or the Environmental Protection Agency.	States Army Corps of Engineers
9.	It shall be distinctly understood that failure to mention specifically and required to camplete the project shall not relieve the controctor of his	y work which would narmally be
10.	All work shall comply with all provisions of the 1994 Maryland Standor and Sediment Control in developing areas, issued by the United States lacal Soil Conservation Service.	rds and Specifications for Soil Erosio
11.	19-1	e complete and in service prior to
12.		% of the maximum dry density
13.	All droinage structures and trenches shall remain functional during cor	nstruction.
14.		lime and fertilizer requirements.
15.	Trenches shall not remain open overnight. If it is necessary for trend	ches to remain open in a traffic are
16.	steel plates capable of bearing traffic shall be used to completely co The contractar shall be responsible for maintenance of traffic on any	ver trench apening.

SHEET No. TITLE COVER SHEET COMPOSITE PLAN EXISTING CONDITIONS & SOILS PLAN MINING / RECLAMATION PLAN #1 MINING / RECLAMATION PLAN #1

MINING / RECLAMATION PLAN #2

MINING / RECLAMATION PLAN #3

ENTRANCE ROAD PLAN & PROFILE 0+00-14+00

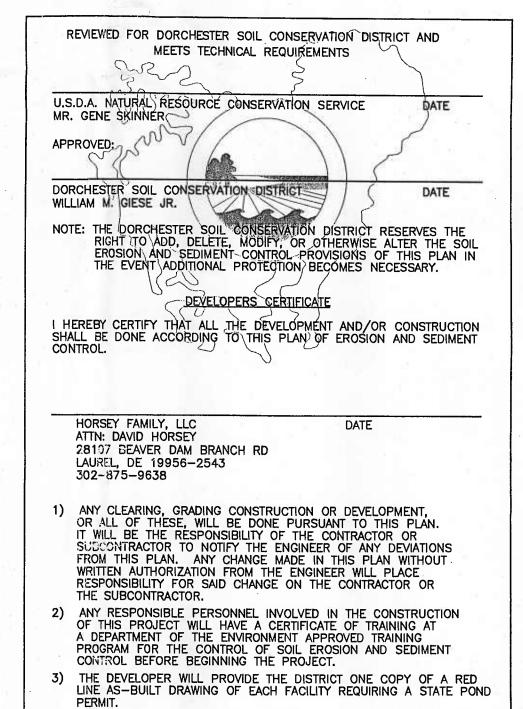
ENTRANCE ROAD PLAN & PROFILE 14+00-28+00

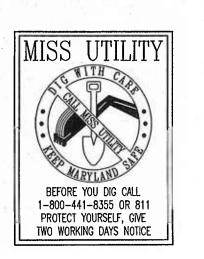
ENTRANCE ROAD PLAN & PROFILE 28+00-44+97

RIVER HAUL ROAD PLAN & PROFILE

SHA ENTRANCE & RIVER LOADING PLAN

INDEX OF SHEETS



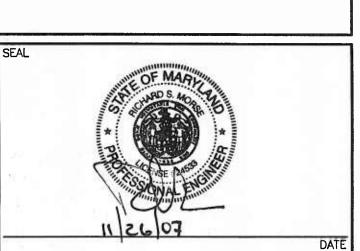


SITE STATISTIC'S PERMIT AREA ACREAGE 142.98 AC PROPERTY ZONING AC & AC/RCA SITE ADDRESS

OWNER/DEVELOPER 5603 SHARPTOWN ROAD HORSEY FAMILY, LLC RHODESDALE, MD 21659 DAVID HORSEY 28107 BEAVER DAM BRANCH RD LAUREL, DE 19956-2543 302-875-9638

ORCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS S.D.A. NATURAL RESOURCES CONSERVATION SERVICES ORCHESTER COUNTY SOIL CONSERVATION DISTRICT DESCRIPTION 3700 Koppers Street Columbia, Maryland 21045 Tel. (410) 730-5411 (800) 540-8489 <u> Lane Engineering, LLC</u> Established 1986 Civil Engineers • Land Planning • Land Surveyors E-mail: mail © leinc.com 117 Bay St. Easton, MD 21601 (410) 822-8003 15 Washington St. Cambridge, MD 21613 (410) 221-0818 114B West Water St. Centreville, MD 21617 (410) 758-2095

UNLESS SIGNED AND DATED HERE:



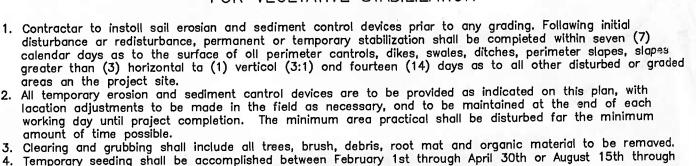
COVER SHEET

MARSHYHOPE SURFACE

IN THE FIRST ELECTION DISTRICT

DORCHESTER COUNTY RECEIVEL NOV 2 6 2007 CRITICAL AREA COMMISSION

AS NOTED JOB No. 060875



SOIL EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS

4. Temporary seeding shall be accomplished between February 1st through April 30th or August 15th through November 1st. During other times, temparary mulching shall be provided. 5. Temparory seeding shall canform to the fallowing applications: 600 lbs. per acre of 10-10-10; 4,000 lbs. per acre of ground limestone, to be incorparated into the sail by discing or ather suitable means. Annual rye grass shall be applied at o rote of 50 lbs. per acre using suitable equipment. Mulching shall be accomplished immediately after seeding.

Seed Mixture (Hardiness Zane <u>7a</u>) From Table 26			Fertilizer Rate	Lime Rate		
Na.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-10-10)	
	Annual Rye grass	- 50	2/1 to 4/30 8/15 to 11/1	1/4"-1/2"	Rate (15 lb/1000 sf)	2 tons/ac
	Millet	50	5/1 to 8/14	1/4"-1/2"	(600 lb/acre)	(100 lb/1000 s

6. Mulching shall be unchopped, unratted, small grain straw applied at a rate of 2-2 1/2 tons per acre. Anchar mulch ancharing tool on the contour, or cellulase fiber at 750 lbs. per acre net dry weight or 50 lbs. of waod cellulose fiber per 100 gals. of water, or with synthetic liquid binder according to

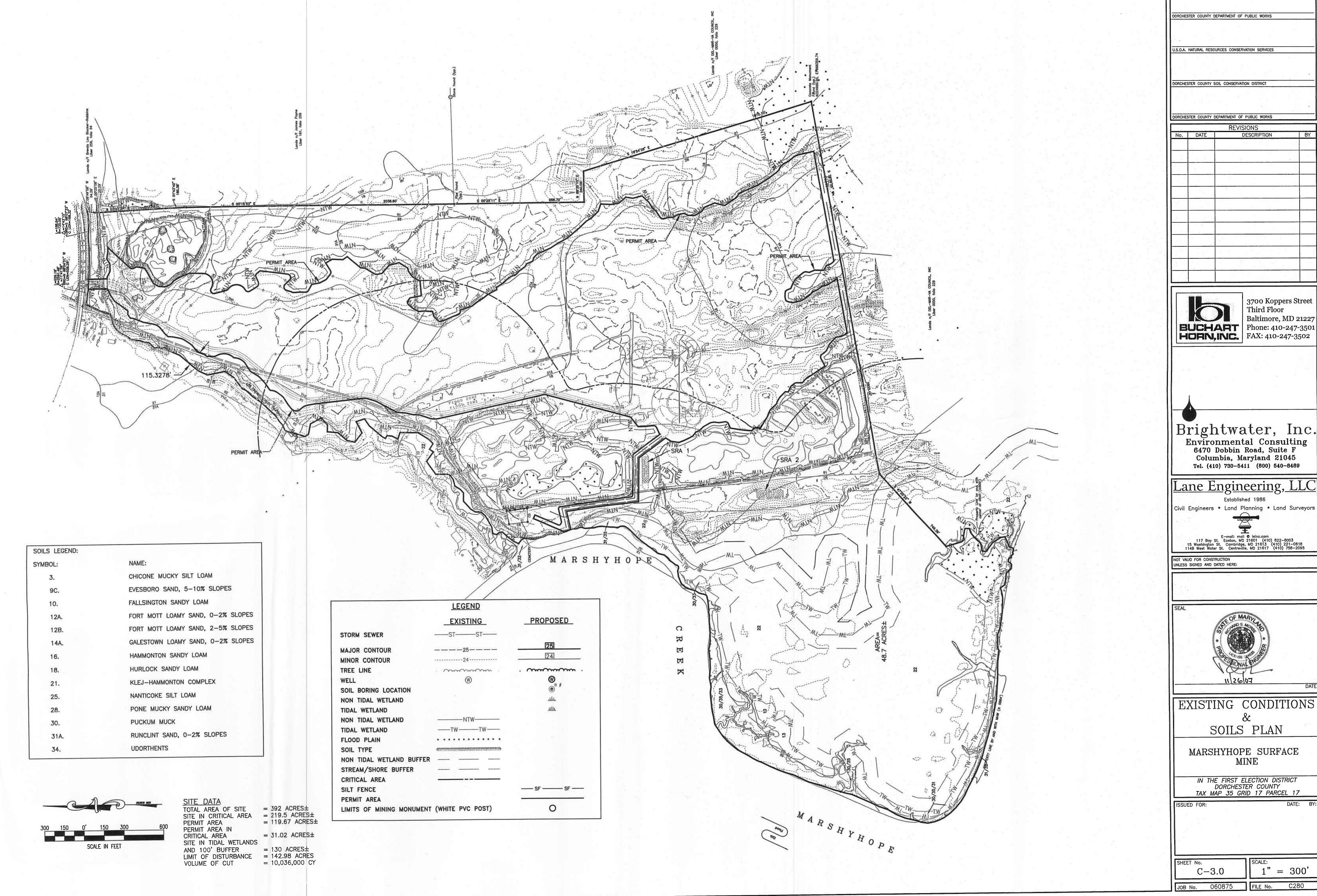
Permanent seeding shall be accomplished between March 1st through May 15th, or August 15th through November 15th. Permanent seeding at other than specified times will be allowed only upon written approval. Permanent seeding shall conform to the following applications: Permanent seeding for having disturbed over (5) acres shall use fertilizer rates recommended by a soil testing agency and the recommendations provided in the Permanent Seeding Summary Table. Permanent seeding far conditions other than listed above shall be performed at the rates and dates as provided in the Permanent Seeding Summary Table Below. Fertilizer and lime amendments shall be incorporated into the top 3" to 5" of the soil by disking or other suitable means. Mulching shall be accomplished as discussed in Item No. 6 of these specifications. Permanent Seeding Schedule:

	Seed Mixture (Har Fram	diness Zone Toble 25	<u>7a</u>)			rtilizer Rote 10-20-20)		Lime Rate
No.	Species	Applicatian Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
10	Tall Fescue (80%) Hard Fescue (20%)	120 30	3/1 - 5/15 or 8/15 - 11/15	1"	00 15/	475 lb /aa	175 lb/ac	2 tons/00
	Tail Fescue (85%) Perennial Rye grass (10% Kentucky Bluegrass (5%)	125 15 10	3/1 - 5/15 or 8/15 - 11/15	1"		175 lb/oc (4 lb./ 1000 sf)	(4 lb./	
1	Tall Fescue Canada Bluegrass Kentucky Bluegrass Resd Top	150	3/1 - 5/15 or 8/15 - 11/15	1"				

8. Any spail or borrow will be placed at o site approved by the Sail Canservation District. 9. All areas remaining or intended to remain disturbed for longer than faurteen (14) days sholl be stabilized in accordance with the USDA, Natural Resources Conservation Service Standards and Specifications for Soil Erosian and Sediment Control in developing area far critical area stabilization. 10. It will be the respansibility of the cantractor or subcontractor to natify the engineer of any deviation from this plan. Any change made in this plan without written authorization from the engineer will place responsibility af said change on the cantractor ar subcontractor.

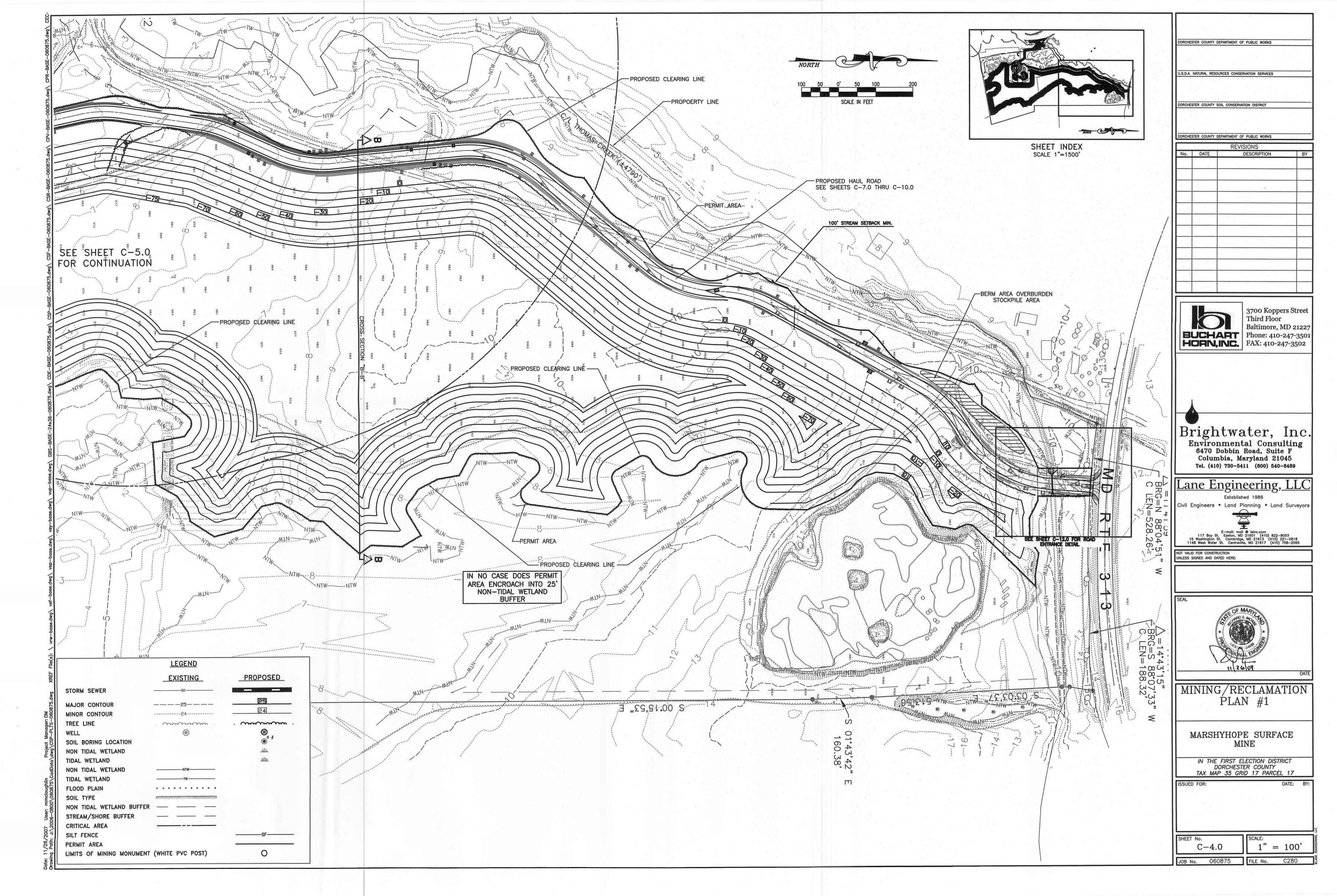


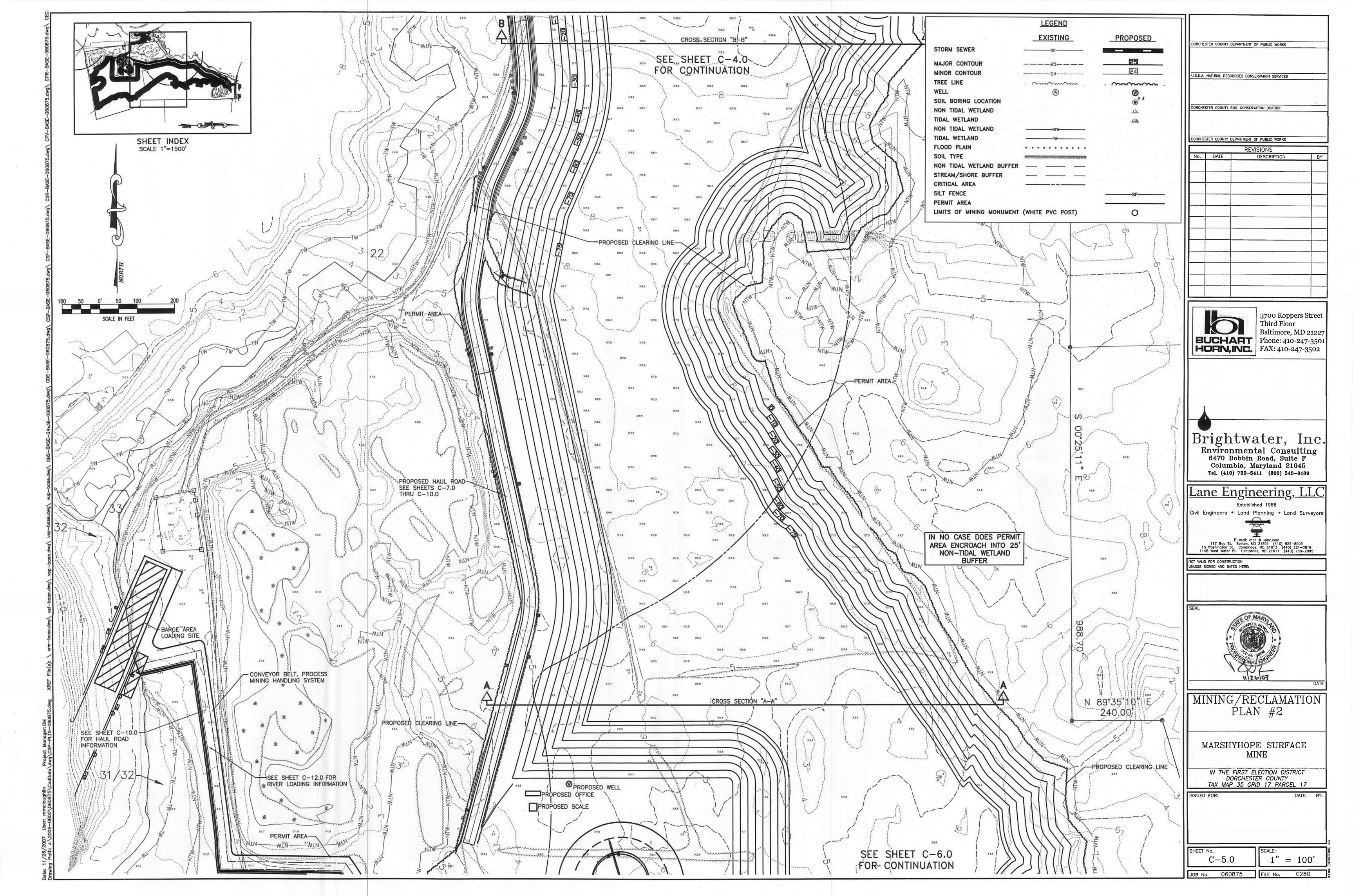
= 400' C - 2.0

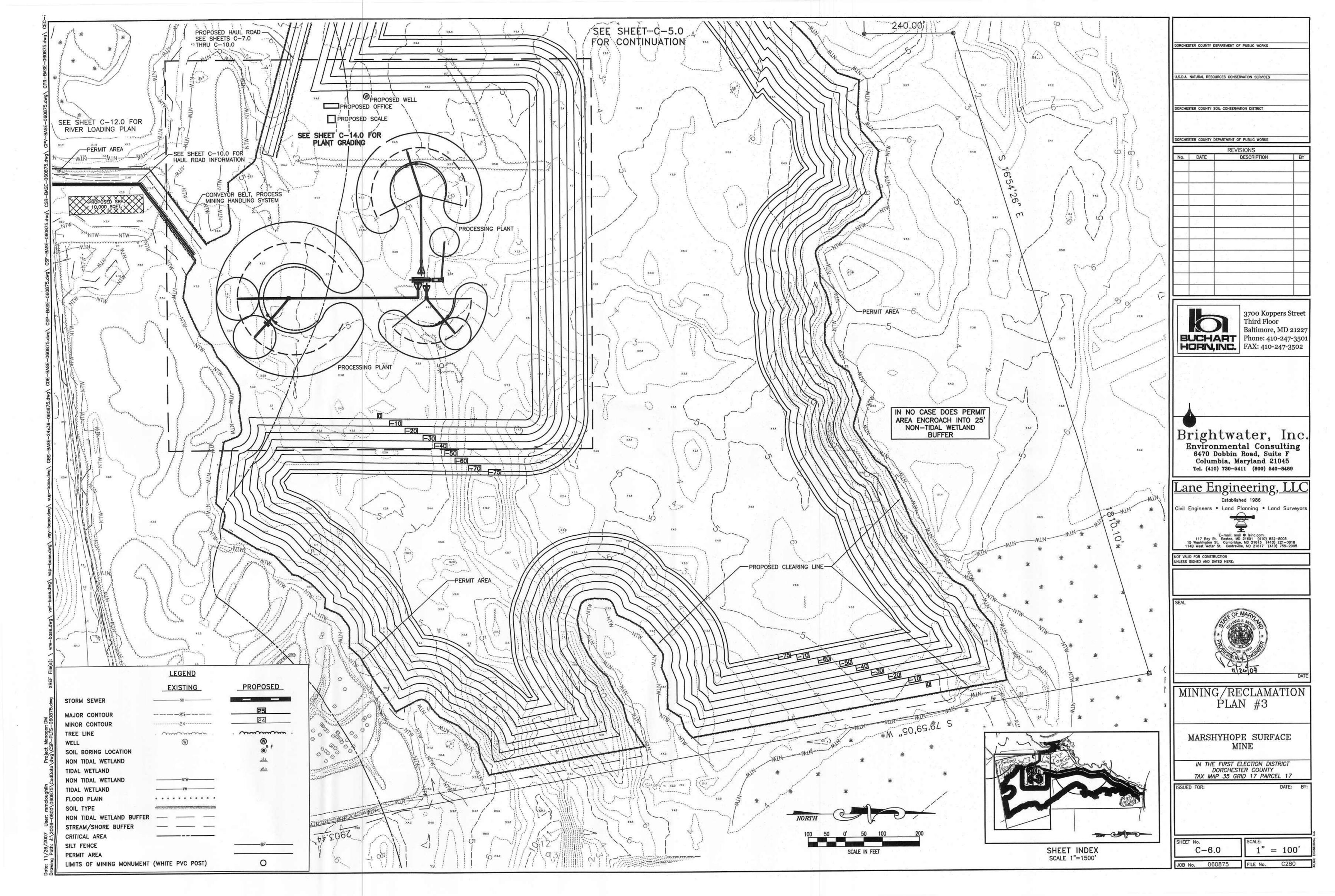


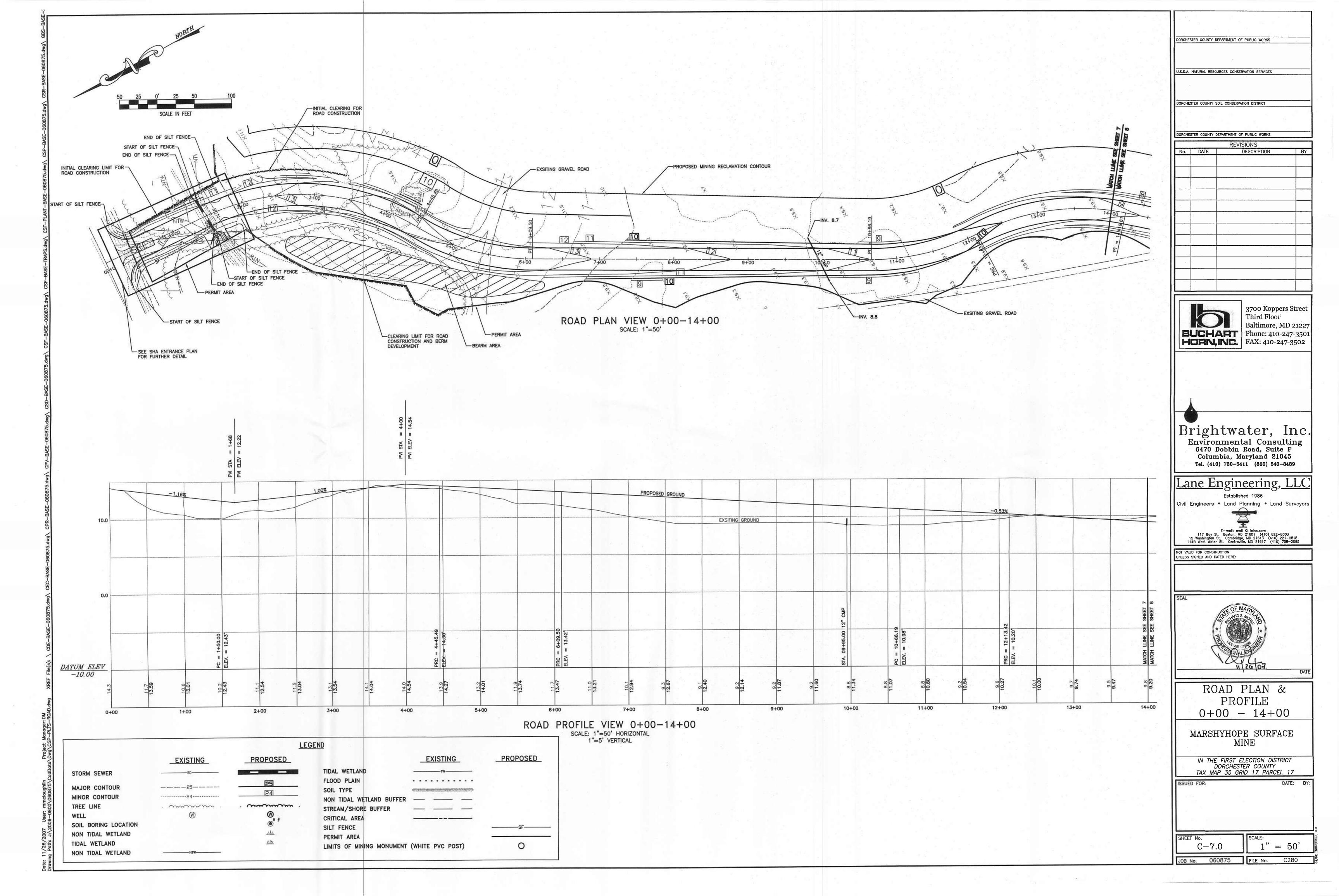
	REVISIONS				
No.	DATE	DESCRIPTION BY			
	1	9 9			
	1 = 3				
E79					
×					
1.5					
1191					
		·			

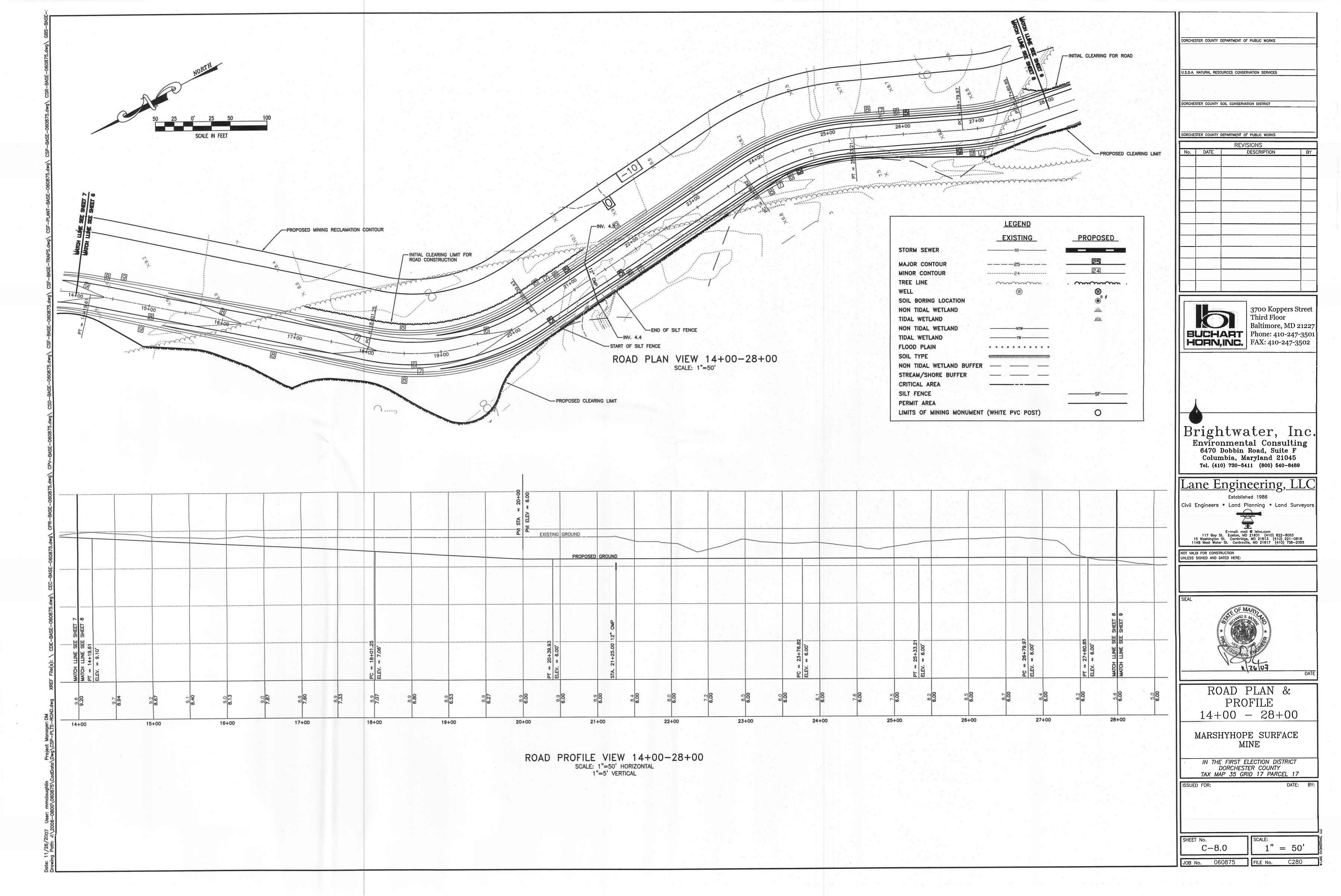
3700 Koppers Street

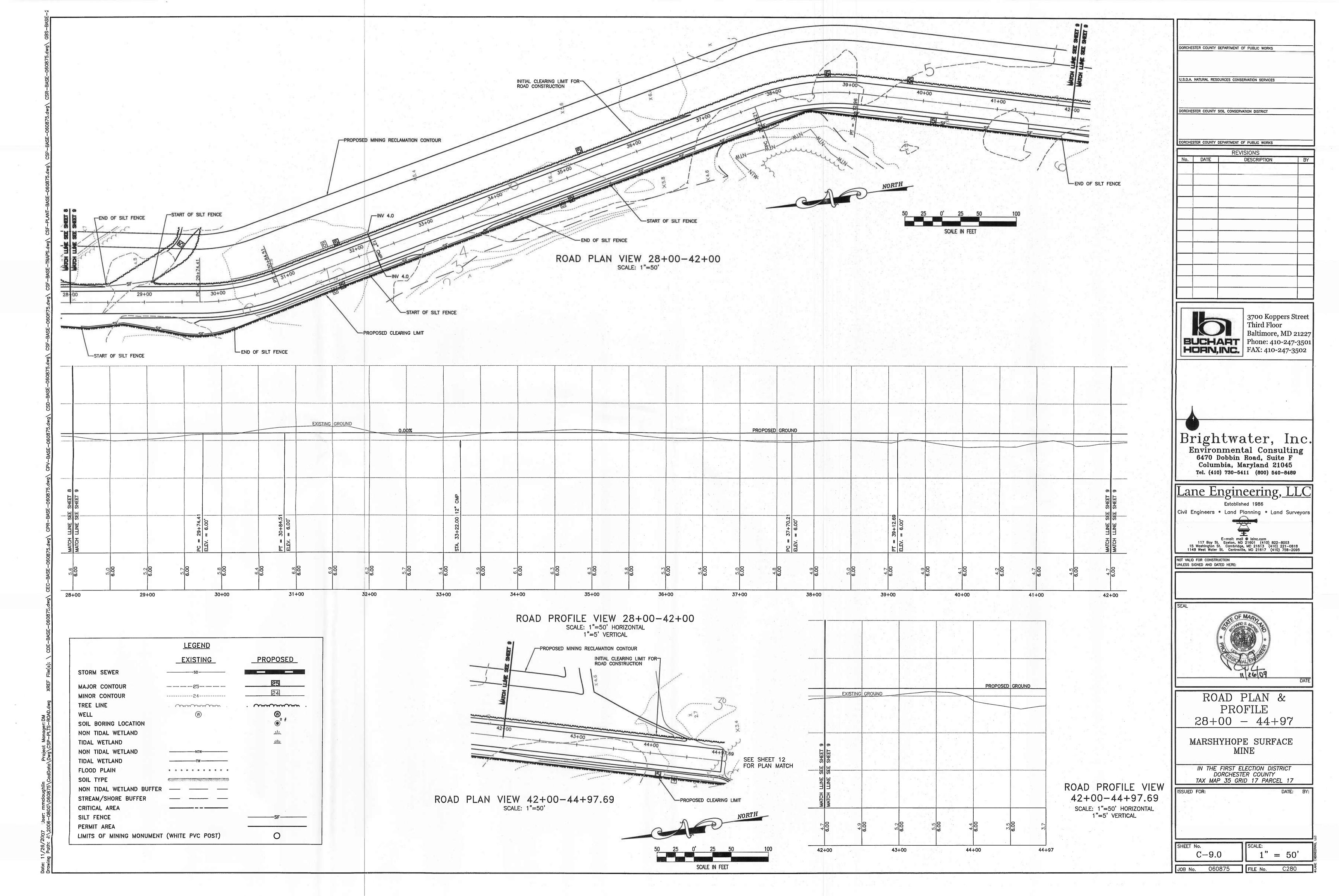


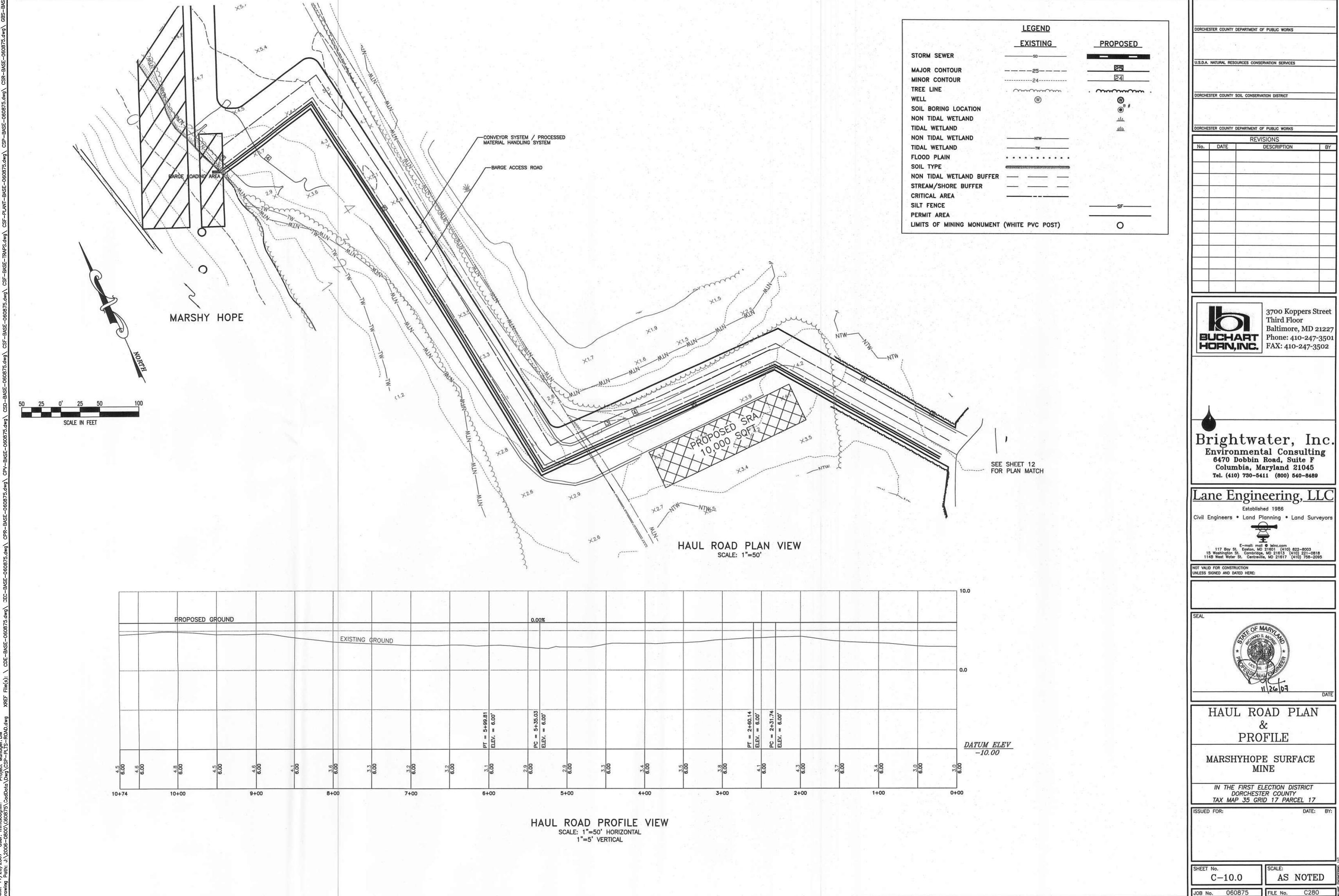






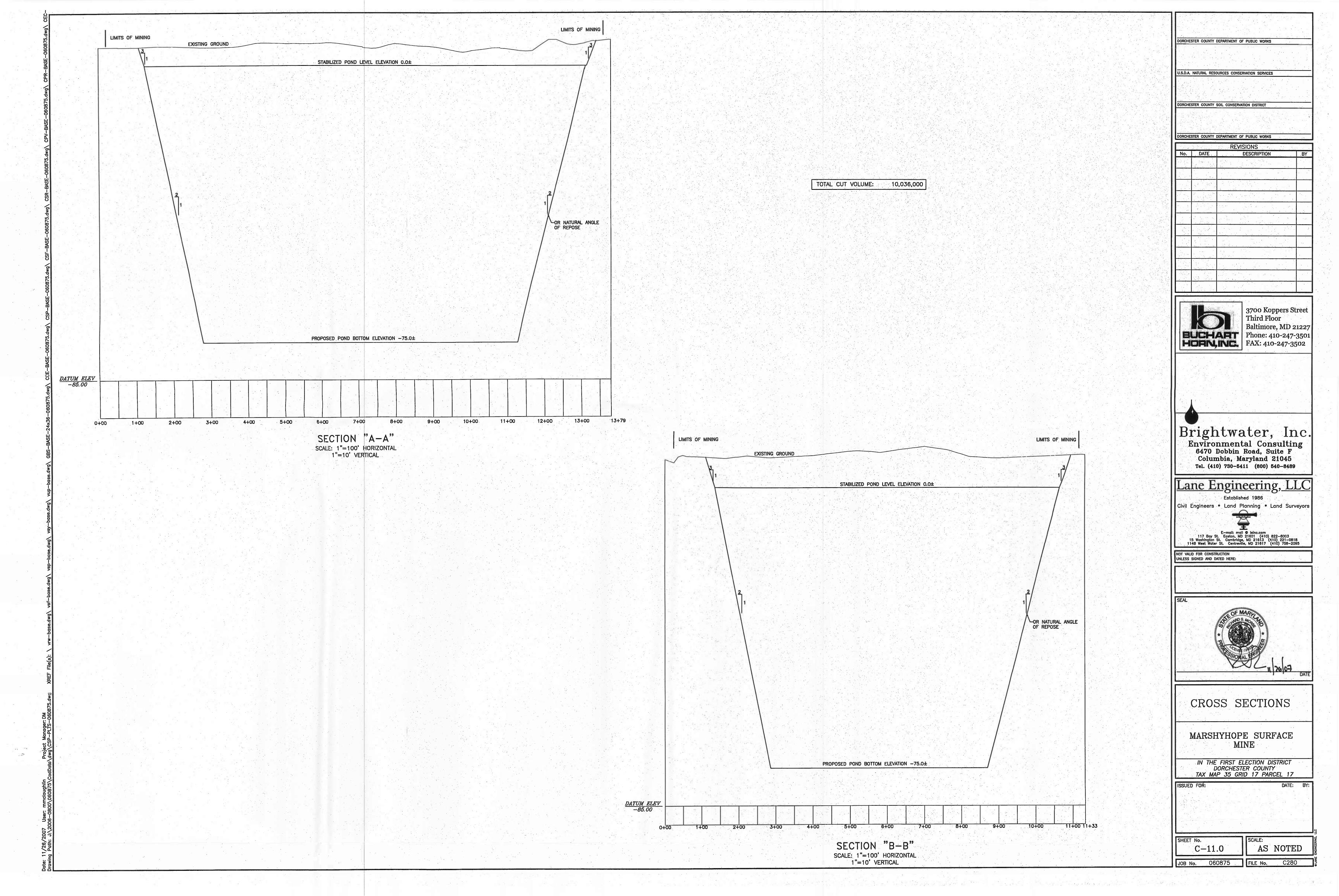


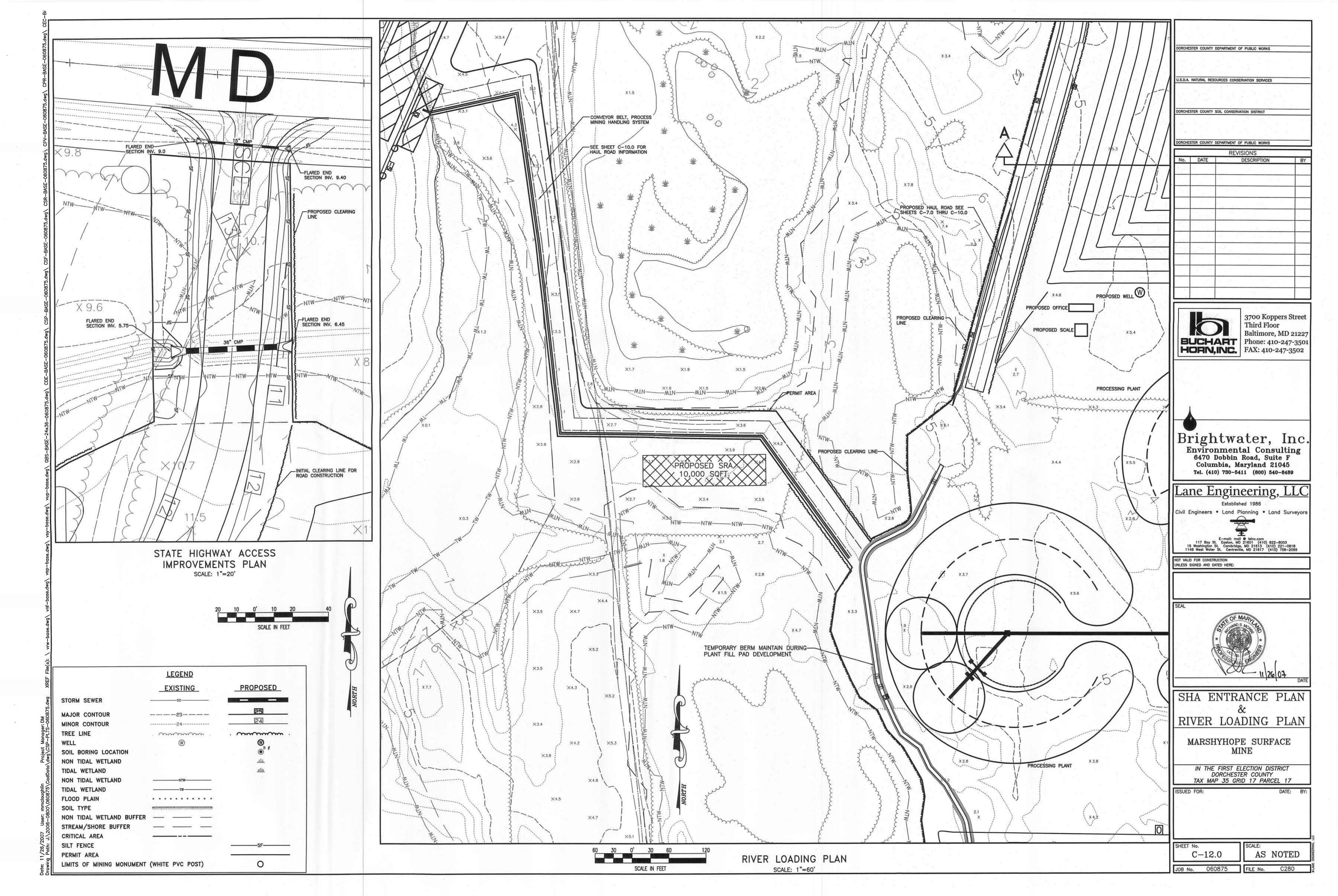


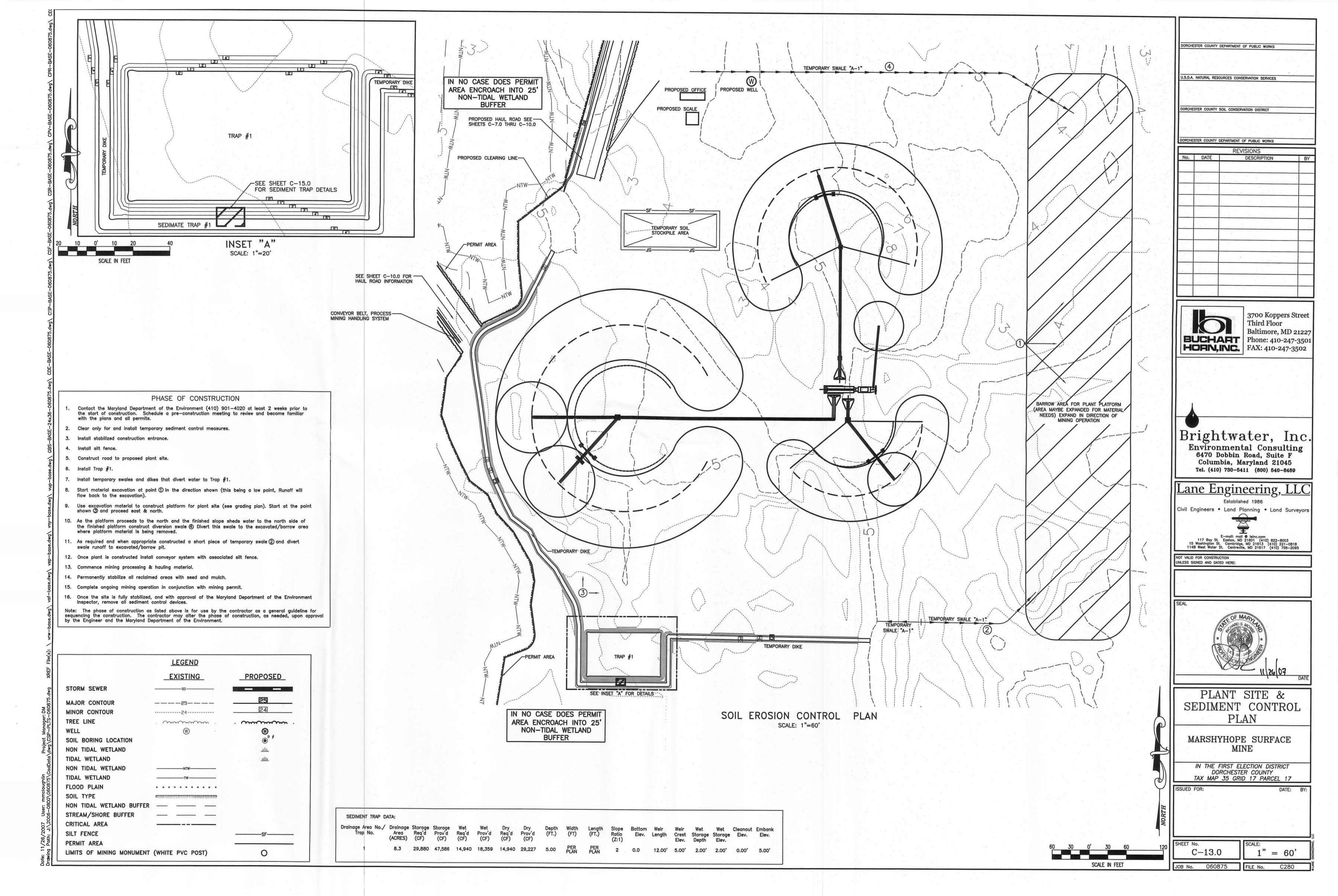


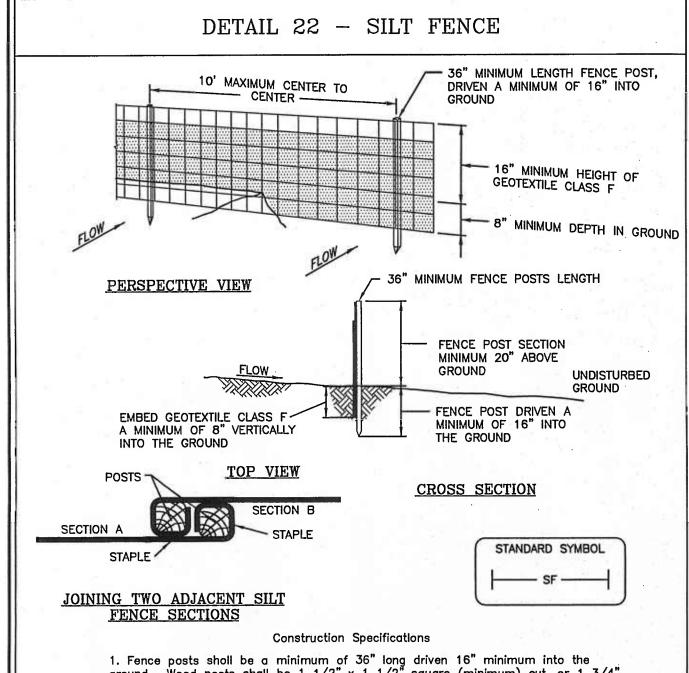
3700 Koppers Street Third Floor Baltimore, MD 21227

AS NOTED









1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 3/4" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements

50 lbs/in (min.)
20 lbs/ln (min.)
0.3 gal ft²/minute (max.)
Test: MSMT 509
Test: MSMT 509
Test: MSMT 322 Tensile Strength Tensile Modulus Filtering Efficiency

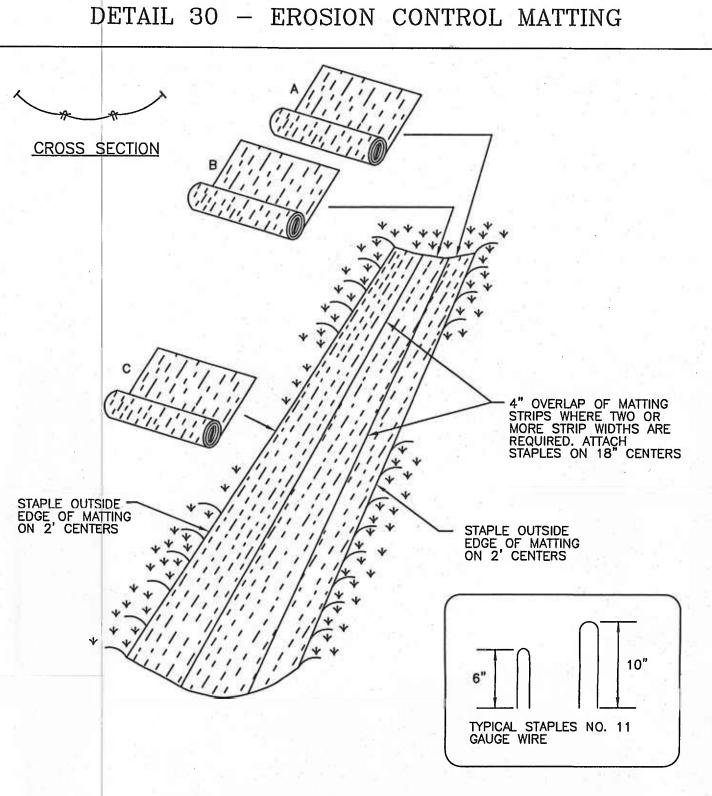
3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.

4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

	Silt Fence Design Criteria	
Slope Steepness	(Maxlmum) <u>Slope Length</u>	(Maximum) <u>Silt Fence Length</u>
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Closs A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE E - 15 - 3WATER MANAGEMENT ADMINISTRATION



Construction Specifications

1. Key—in the matting by placing the top ends of the matting in a narrow trench. Backfill the trench and trench firmly to conform to the channel cross—section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".

2. Staple the 4" overlap in the channel center using an 18" spacing between staples.

4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2

3. Before stapling the outer edges of the matting, make sure the matting is smooth

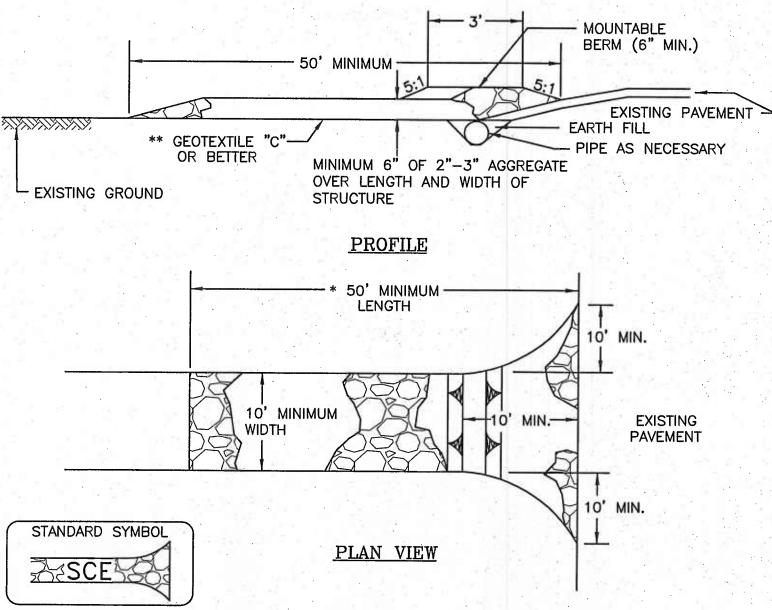
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples. Note: If flow will enter from the edge of the matting the the area effect by the area

effected by the flow must be keyed-in.

S. DEPARTMENT OF AGRICULTURE	PAGE	MARYLAND DEPARTMENT OF ENVIRONMENT
SOIL CONSERVATION SERVICE	G - 22 - 2	WATER MANAGEMENT ADMINISTRATION

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

2. Width — 10' minimum, should be flared at the existing road to provide a turning radius.

3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. **The plan approval authority may not require single family residences to use geotextile.

1. Length - minimum of 50' (*30' for single residence lot).

4. Stone — crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the

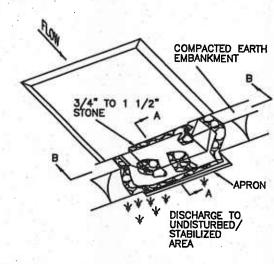
5. Surface Water — all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location — A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving

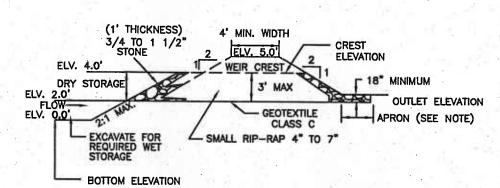
U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE F - 17 - 3WATER MANAGEMENT ADMINISTRATION

DETAIL 10A - STONE/RIP-RAP OUTLET SEDIMENT TRAP - STIV

SECTION B-B



PERSPECTIVE VIEW



1. The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.

SECTION A-A

5' MIN LENGTH UP TO 5 ACRES. OVER 5 ACRES USE 10' MIN.

2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over—sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be 4', measured at centerline of embankment.

3. All cut and fill elopes shall be 2:1 or flatter.

4. Elevation of the top of any dike directing water into trap must equal or exceed the height of trap embankment.

5. Storage area provided shall be figured by computing the volume measured from top of excavation. (For storage requirements see Table 9). 6. Geotextlle Class C shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Section of fabric must overlap ot least 1' with section nearest the entrance placed on top. Fabric shall be embedded at least 6" into existing ground at entrance of outlet channel.

7. 4" - 7" stone shall be used to construct the well and 4" - 12" or Class in rip—rap shall be used to construct the outlet channel.

8. Outlet — An outlet shall include a means of conveying the discharge in an the discharge point shall be provided as necessary.

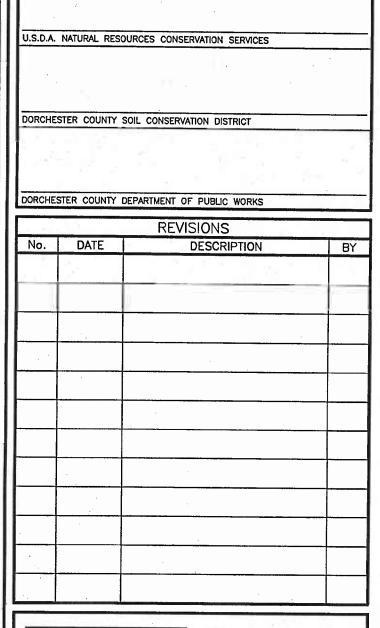
10. Sediment ehall be removed and trap rectored to ite original dimensions when the sediment has accumulated to 1/2 of the wet storage depth of the trap (900 cf/ac). Removed sediment shall be deposited in a suitable area and

11. The structure shall be inspected periodically after each rain and repaired

12. Construction of traps shall be carried out in such a manner that sediment pollution is abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be pratected in accordance with Grade Stabilization Structure criteria. The remainder of the interior elopes should be stabilized (one time) with sesd and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.

13. The structure shall be dewatered by approved methods, removed and the area etablilzed when the drainage area has been properly stablilzed.

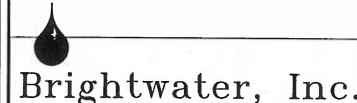
MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE



DORCHESTER COUNTY DEPARTMENT OF PUBLIC WORKS



3700 Koppers Street Third Floor Baltimore, MD 21227



Environmental Consulting 6470 Dobbin Road, Suite F Columbia, Maryland 21045 Tel. (410) 730-5411 (800) 540-8489

<u>Lane Engineering, LL</u>

Civil Engineers • Land Planning • Land Surveyors

UNLESS SIGNED AND DATED HERE:

WATER MANAGEMENT ADMINISTRATION



EROSION CONTROL DETAILS

MARSHYHOPE SURFACE MINE

IN THE FIRST ELECTION DISTRICT DORCHESTER COUNTY

NOV 2 6 2007 CRITICAL AREA COMMISSION

AS NOTED 060875

